

IN THE CLAIMS

1. (Currently Amended) A method of inducing apoptosis ~~of a cell~~, comprising contacting a cell with an effective amount of an inhibitor of a glutamine transport system component agent, wherein (a) the agent inhibits the uptake of glutamine by the cell, and (b) the cell undergoes apoptosis.
2. (Original) The method of claim 1, wherein the cell is a carcinoma cell.
3. (Currently amended) The method of claim 2, wherein the carcinoma cell is a hepatocarcinoma cell.
4. (Currently amended) The method of claim 2 wherein the carcinoma cell is ~~in~~ comprised by a patient.
5. (Currently amended) The method of claim 3, wherein the hepatocarcinoma cell is selected from the group consisting of a PLC/PRF/5 cell, an SK-Hep cell, a Hep3B cell, a Huh-7 cell, a FOCUS cell and a HepG2 cell.
6. (Currently amended) The method of claim 1, wherein said agent glutamine transport system ~~modulates a component of~~ is the ASC a glutamine transport system.
7. (Currently amended) The method of claim 6, wherein the inhibitor of a glutamine transport system component ~~of a glutamine transport system~~ is an inhibitor of the expression of ATB⁰.
8. (Canceled)
9. (Currently amended) The method of claim ~~[[8]]~~ 7 wherein the ~~agent~~ inhibitor of expression of ATB⁰ is ~~selected from the group consisting of an antibody, a polynucleotide, and an amino acid analog.~~

10. (Currently amended) The method of claim [[8]] 9 wherein the ~~agent is a~~ polynucleotide that ~~inhibits the expression of ATB⁰~~ is an siRNA.

11. (Canceled)

12. (Currently amended) The method of claim 10 wherein the ~~polynucleotide~~ siRNA consists essentially of a sequence set forth in ~~SEQ ID NO:2~~, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, or SEQ ID NO:6.

13. (Canceled)

14. (Currently amended) The method of claim [[12]] 10 wherein the ~~polynucleotide~~ siRNA consists essentially of a sequence as set forth in SEQ ID NO:3.

15. (Currently amended) A method of inducing apoptosis of a cell, comprising ~~contacting~~ introducing into a cell ~~with a vector which comprises a polynucleotide that encodes a~~ polynucleotide which reduces the expression of an ATB⁰ gene product, ~~wherein (a) the vector enters the cell, (b) the polynucleotide is produced in the cell,~~

16. (Withdrawn) The method of claim 15 wherein the polynucleotide comprises a sequence of at least 10 contiguous nucleotides from SEQ ID NO:1.

17. (Currently amended) The method of claim [[16]] 15 wherein the polynucleotide ~~comprises~~ consists essentially of a sequence as set forth in any one of ~~SEQ ID NO:2~~, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5 and SEQ ID NO:6.

18. (Canceled)

19. (Currently amended) The method of claim 15 wherein the polynucleotide consists essentially of the sequence as set forth in SEQ ID NO:3.

20. (Currently amended) The method of ~~any one of claims~~ [[19]] 15 wherein the cell is a hepatocarcinoma cell.

21. (Original) The method of claim 20 wherein the hepatocarcinoma cell is comprised by a patient.

22. (Currently amended) The method of claim 15 wherein the nucleic acid is an siRNA ~~vector is an adenovirus vector.~~

23. (Canceled)

24. (Currently amended) A method of treating an hepatocarcinoma comprising administering a therapeutically effective amount of an inhibitor of a glutamine transport system component ~~agent~~ to an individual in need of treatment, wherein (a) ~~the agent contacts a hepatoma cell in the individual,~~ (b) ~~the agent selectively inhibits the activity of an ATB^a of the hepatoma cell,~~ (c) ~~glutamine uptake by the hepatoma cell is significantly reduced,~~ and (d) the therapeutically effective amount of the inhibitor induces apoptosis in a the hepatoma cell comprised by the hepatocarcinoma undergoes apoptosis.

25. (Canceled)

26. (Withdrawn) A method of diagnosing cancer in a patient comprising obtaining a sample from the patient, determining the amount of ATB⁰ in the sample, and predicting whether a carcinoma is in the patient based upon a higher than normal level of ATB⁰ in the sample.

27. (Withdrawn) The method of claim 26 wherein the carcinoma is a hepatoma.

28. (New) The method of claim 24, wherein the inhibitor of a glutamine transport system is an siRNA.

29. (New) The method of claim 28, wherein the siRNA consists essentially of the sequence set forth in SEQ ID NO: 3.